EXHIBIT 37

c. d. simpson & associates, inc.

March 18, 2023

Ms. Holly Battersby
Rosati, Schultz, Joppich and Autsboechler
Attorneys at Law
27555 Executive Drive, Suite 250
Farmington Hills, MI 48331

RE: Gillman v. City of Troy

Dear Ms. Battersby:

You have requested I review documents on the above captioned case, conduct analysis and render opinions based on cited peer reviewed published research and my experience and practice regarding diacetylmorphine (Heroin) and Fentanyl. The following is my report:

Background

I received my Bachelor, Masters and Specialist degrees from the University of Louisville and my Doctoral degree from Indiana University. Based on review of my credentials I was appointed to the faculty of first the University of Louisville and, for the past 45 years to the faculty of Western Michigan University as a Neuropsychopharmacologist. At Western Michigan University I progressed from Assistant Professor, to Associate Professor, to Full Professor and at the current time Distinguished Professor with Tenure and member of the Graduate Faculty. In each of these progressions in rank my credentials, research and teaching was reviewed in depth and confirmed my profession as Neuropsychopharmacologist. Over the last 45 years, I have been awarded over $35,000,000 in grants and contracts from state, federal and Fortune 500 corporations as a Neuropsychopharmacologist in the role of Principal Investigator/Project Director. I have served, for 41 years, as the Director of the Specialty Program in Alcohol and Drug Abuse which consists of undergraduate and graduate programs, human research laboratories and multiple doctoral training substance use disorder clinics. I conduct ongoing research, and publish, in peer reviewed journals and peer reviewed paper presentations regarding multiple arenas of psychoactive/psychotropic drugs on humans regarding Neuropsychopharmacology. I have served as a Neuropsychopharmacologist for Supreme Courts of Michigan, Ohio and Wisconsin for the continuing education of judges and senior court personnel in areas of Neuropsychopharmacology. I have served as a consulting Neuropsychopharmacologist for numerous Fortune 500 companies and national labor unions. I have been qualified and testified as a Neuropsychopharmacologist in Federal, Circuit, Court of Claims and District Courts in over 600 cases spanning the last 40 years. I have never failed to be qualified as a Neuropsychopharmacologist in any court.

Neuropsychopharmacology is defined as to role and scope as the study of psychoactive/psychotropic drug in humans, how the drugs enter the body, are absorbed in the body, distributed in the body, neurological/physiological/psychological effects of these drugs, the sciences underpinning the measurement of these drugs in bodily fluids/tissue, how these drugs are metabolized and eliminated from the body and expected behaviors of these drugs at varying dosage and/or measured and confirmed bodily fluid/tissue drug level. I have led faculty as President of the Faculty Senate and as President of the American Association of University Professors: The Academy of Scholars.

In my role in providing expert training, consultation, reporting and testimony, I maintain all work within the defined role and scope of Neuropsychopharmacology. As such the rules, regulations and definitions of toxicology and medical doctor do not apply to me and are not within the role and scope of my discipline/profession. In all consultation, reports and testimony I rely on my experience and research in Neuropsychopharmacology, but only to the extent this experience can be supported by cited peer reviewed published research. This report is a result of my qualifications, experience and research supported by peer reviewed published research. As I work only with the role and scope in the four-corner definition of Neuropsychopharmacology. I never comment on opinions/reports of those from other disciplines/professions. To do so would be blatantly unethical.

Materials Reviewed

1. Medical Examiner's file.
2. Autopsy report.
3. Oakland County Sheriff report.
4. Prisoner Custody report and booking records.
5. Prisoner property records.
6. Communication logs.
7. Cell Check logs.
8. Troy Police report regarding death.
9. Complaint.
10. Over 400 peer reviewed published research articles.

Relevant Information/Data

1. No contraband found upon entering jail.
2. Coughing upon entering jail.
3. Statement Ms. Miller going to be sick from withdrawal upon entering jail.
4. Unknown source for Fentanyl.
5. Extensive previous use of opiates (Heroin).
6. Needle marks on arm at autopsy.
7. No needle or syringe in inventory of cell after death.
8. Arrival at jail = 7/16/2020, 1700 hours.
9. Report of abdominal pain, cough, nausea, vomiting.
10. Autopsy cause of death = Fentanyl Intoxication.

11. Jail observations through 7/19/2020 indicate Miller showing opiate withdrawal signs and symptoms (see #9 above).
12. Miller spoke to staff at 1230 hours, 7/19/2020.
13. Miller "stirring" at 1245 hours.
14. Post mortem toxicology.
    a. Fentanyl = 3.7 ng/ml.
    b. Nonfentanyl = 2.4 ng/ml.
    c. Benzoylecgonine detected but not quantified.
15. Gender = female.
16. Weight = 155 lbs.
17. Height = 5'7".
18. Age = 41.
19. Miller found unresponsive = 7/19/2020, 1521 hours.
20. Date and time of death = 7/19/2020, 1615 hours.
21. Evidence of Chronic Obstructive Pulmonary Disease (COPD).
22. Observations indicate intermittent sleep patterns.

Application of Peer Reviewed Published Research and Professional Experience

Based on my professional experience and peer reviewed published research the following are my analyses:

1. Benzoylecgonine is a bright line, non-intoxicating, metabolite of cocaine. The presence of this in Ms. Miller's blood indicates use of cocaine, dose dependent, within the previous 96 hours prior to death.
2. As neither Heroin or 6-MAM was identified in the toxicology results, Ms. Miller was not impaired by Heroin at the time of her death.
3. Heroin withdrawal is very rarely life threatening and using the Clinical Opiate Withdrawal Scale (COWS) determines the level of withdrawal (mile, moderate, severe) (American Society of Addiction Medicine, 2020: Hodding, et.al., 1980; Darke, 2016; Federal Bureau of Prisons, 2014).
4. Using COWS protocols, and ascribing to Ms. Miller the symptoms listed in numbers 9 and 22 above her withdrawal comports as mild (American Society of Addiction Medicine, 02020; Thompkins, et.al., 2009).
5. Mild Heroin withdrawal is generally characterized as flu like symptoms and objectively mild (Darke, 2016).
6. Typical mild opiate withdrawal symptoms include hyperexcitability, insomnia, diarrhea, vomiting, cold flashes, rhinorrhea, piloeroction, myalgia, photophobia, sweating, hyperthermia, yawning, stomach cramps and joint ache (American Society of Addiction Medicine, 2020; Rogers, 2022; Shah and Huecker, 2022). Ms. Miller was displaying some, but not all of these mild withdrawal symptoms.
7. There is no support for any pharmacological approach for the management of Heroin withdrawal (Rahimi-Mouagaar, et.al., 2018).

8. Treatment for mild opiate withdrawal is, in series not concurrently, pushing liquids with electrolytes for dehydration, aspirin, acetaminophen, ibuprofen. (Amato, et.al., 2004; American Society of Addiction Medicine, 2020).
9. There is not agreement as to when opiate withdrawal symptoms begin and the duration of these symptoms. Kosten and Baxter (2019) found opiate withdrawal begins approximately 12 hours after last Heroin dose and lasts up to 72 hours Hodding, et.al. (1980) indicate Heroin withdrawal symptoms begin 6 to 12 hours after last dose. Burma, et.al., (2017) concluded Heroin withdrawal symptoms begin 8 hours after last dose and continue 48 hours after last dose. The Federal Bureau of Prisons (2014) produced results Heroin withdrawal symptoms peak at 32 hours after last dose. Rogers (2022) produced a range of Heroin withdrawal symptoms existing for 36 to 48 hours after last dose. Hosztafi (2011) showed Heroin withdrawal symptom continue 48 to 72 hours after last dose. Rahimi-Mouaghar, et.al. (2018) showed a correlation between peak Heroin withdrawal symptoms and 2nd day after last dose.
10. If Heroin withdrawal symptoms are severe (not mild or moderate), Tramadol, Tizanidine Ibogaine, or Buprenorphine should be added to the medication protocols (Kosten and Baxter, 2019; Amato, et.al., 2004; Srivastava, et.al., 2020; Mash, et.al., 2001; Lintzeris, 2002).
11. As there was no indication of a needle or syringe like instrument in Ms. Miller's cell inventory after death, injection is ruled out as the route of administration and either an oral route or insufflation must have been the fentanyl route of administration.
12. The molecular formula for Fentanyl is C22H28N20 and it is a synthetic opioid agonist that binds to and activates mu-receptors in the central nervous system (CNS) mimicking the effects of endogenous opiate. Fentanyl is 100 times as potent as morphine (PubChem, 2021).
13. Fentanyl is a second generation synthetic phenylpipomidine (Ruan, et.al., 2016).
14. Fentanyl has a rapid onset of action beginning 2-3 minutes after initial absorption and a duration of peak action of 30-60 minutes (McIntyre and Anderson, 2012).
15. There is significant disagreement as to the lethal Fentanyl blood level. Kuszynska, et.al., (2018) found the lethal blood level of Fentanyl begins at 23 ng/m. Gill, et.al. (2013), Kuhlman, et.al. (2003), and Olson (2010) concluded post mortem Fentanyl lethal blood levels tend to have very wide and overlapping ranges of blood Fentanyl concentration. Giorgetti, et.al., (2017) directly states there is no concensus regarding lethal blood Fentanyl concentrations due to possible drug-drug interactions and individuals having poly-morbid conditions. Anderson, et.al., (2012) concluded Fentanyl post mortem concentrations can not be compared with ante mortem Fentanyl concentrations as post mortem Fentanyl concentrations are, on average, 9 times higher than ante mortem fentanyl concentrations. Sutter, et.al., (2016) produced results indicating lethal Fentanyl blood concentrations begin at 7.9 ng/ml. Lung and Lemos (2014) suggest a peripheral Fentanyl blood level equal to or greater than 25 ng/ml indicates Fentanyl should be contributory to cause of death. Cheema, et.al., (2020) produced data supporting the lethal blood level for Fentanyl begins at 24 ng/ml.
16. Terminal half-life for Fentanyl is approximately 7 hours (PubChem, 2021).
17. Ambient, environmental, elevated temperature increases Fentanyl absorption significantly (Carter, 2003; Newshaw, 2003; Sindali, et.al., 2021).

18. Polymorbid individuals can have a lethal level of Fentanyl in blood as low as 3 ng/ml (Cheema, et.al., 2020) and Fentanyl deaths at low blood Fentanyl concentrations highly correlate with polymorbid pulmonary diseases/disorders (Georgetti, et.al., 2017).
19. The therapeutic blood Fentanyl range is 1 to 3 ng/ml and physician monitored therapeutic blood Fentanyl ranges may exceed 3 ng/ml (Shanks, 2022).
20. Fentanyl overdose produces the hierarchical symptoms of drowsiness, relaxation, sedation, fatigue, dizziness, depression of the respiratory system, nausea, vomiting, decreased consciousness, serotonin syndrome (altered mental state, neuromuscular hyperactivity and autonomic instability), rigidity of the diaphragm, rigidity in chest muscles and upper airway, coma and death (Pergolizzi, et.al., 2021; Kuczynska, et.al., 2018; Greenier, et.al., 2014).

Overall Opinions Based on Case Data/Information, Cited Peer Reviewed Published Research and My Professional Experience.

Taking into account all data/information, cited peer reviewed published research and my professional experience the following are my overall opinions:

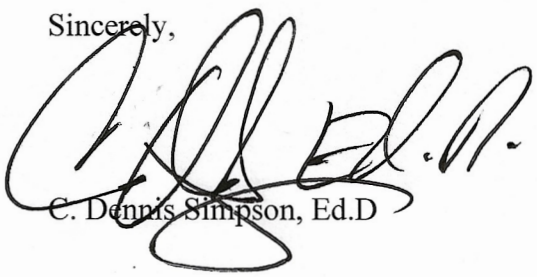
1. Ms. Miller ingested cocaine in a period not more than 96 hours prior to her death, but was not impaired by cocaine in any form at the time of her death.
2. Ms. Miller was experiencing mild Heroin withdrawal symptoms (COWS Protocol) during the majority of the time she was in the jail until the onset of Fentanyl effects.
3. Ms. Miller was provided over the counter analgesics and fluids during her Heroin withdrawal at the jail consistent with COWS mild opiate withdrawal. She was offered fluids, but the fluids should have, per COWS protocols included, electrolytes and required volume of fluid consumption.
4. As. Ms. Miller was experiencing mild Heroin withdrawal, her withdrawal did not meet severe withdrawal COWS Protocol which, concurrent with her poly-morbidity, would require medical referral.
5. It is impossible to determine when Ms. Miller obtained the Fentanyl.
6. Ms. Miller ingested the Fentanyl either through oral or insufflation.
7. Ms. Miller ingested the Fentanyl at a maximum of 60 minutes prior to lethal effect. The time could be less.
8. Ms. Miller's post mortem Fentanyl blood level is very close to the minimum reported in the literature for lethal Fentanyl blood concentration. Her post mortem Fentanyl blood level is within the upper range reported for those patients under medical monitoring.
9. Ms. Miller was polymorbid (opiate use disorder and COPD). The literature indicates poly-morbidity produces lethality at low blood Fentanyl levels. To opine this possible polymorbid effect requires the specific opinion of a board-certified Pulmonologist.
10. It is impossible to determine the specific time Ms. Miller began to display the first hierarchical symptoms of Fentanyl overdose (drowsiness), but it had to be within 60 minutes of her death.

The above are my review, extraction of relevant data/information, analysis and opinions based upon materials provided to me, peer reviewed published research and my professional

experience. I reserve the right to modify this report if additional data/information is provided to me.

I declare (or certify, verify or state) under penalty of perjury that the foregoing is true and correct. Executed on March 18, 2023.

Sincerely,



C. Dennis Simpson, Ed.D

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